

43. (once amended) An EL device [as described in claim 42, wherein the *n-p-n* layered structure is replaced by a *p-n-p* configuration] A *p-n-p* configuration electroluminescent (EL) device comprising successive layers of:

a *p*-type silicon layer on insulator substrate, comprising thin doped Si *p/p+* regions separated by insulating regions, such as SiO₂, wherein said *p+* regions are contacted to form bottom electrodes;

a thin-layer of Si which allows further epitaxial growth;

a *p⁺*-type Si layer for addressing contact electrodes;

a thin (about 10 nm) SiO₂ layer is deposited, which is patterned with a pitch of about 0.1 microns;

an *n*-Si layer forming nanotips is deposited;

a *p*-type wide energy gap layer selected from [a] the group of semiconductors [such as] Zn_aMg_{1-a}Se, Zn_aMg_{1-a}S, Zn_aMg_{1-a}S_bSe_{1-b}, Zn_aBe_{1-a}S_bSe_{1-b}, Al_cGa_{1-c}N, ZnMgBeSe, and AlInN, is stacked on the layer comprising of nanotips;

a layer comprising of cladded quantum dots;

a *p*-type wider energy gap (than said wide *p*-type wide energy gap layer) semiconductors layer selected from the semiconductors consisting of: Zn_aMg_{1-a}Se, Zn_aMg_{1-a}S, Zn_aMg_{1-a}S_bSe_{1-b}, Zn_aBe_{1-a}S_bSe_{1-b}, Al_cGa_{1-c}N, ZnMgBeSe, and AlInN; and

a layer forming contact electrodes, wherein said set of electrodes are appropriately biased and addressed to create a two-dimensional display.

44. (once amended) [An] The EL device as described in claim 1, wherein the bottom electrodes are separated by technique other than oxidation such as reverse biased junctions.--

REMARKS

Claims 1 and 38-44 have been rewritten.

The Examiner rejected claims 1-3, 5-8, 10-16, 18, 20, 25-27, 29, and 38-44 under 35 USC 112 as containing subject matter which was not described in the specification. The Examiner cited that the term "p-doped" was not described in the specification and "desired pixels" is indefinite. The term "p-doped" has been corrected as p-type and the word "desired" has been deleted.

The Examiner objected to the underlines in the clean copy of the previous amendment. Since a clean copy is no longer necessary, only a marked-up copy is submitted herewith.

The Examiner objected to claims 42 and 43 because "they are not in a proper form" and "should not depend on claim 1". Claims 42 and 43 have been rewritten as independent claims.

The Examiner objected to claim 11, because the term "first p-doped Si" is no longer present in amended claim 1. The word "first" has been deleted.

The Examiner objected to claims 38 and 42 for the words "comprising of". These words have been replaced by comprised of as suggested by the Examiner.

The Examiner rejected claims 1-3, 5-8, 10-16, 18, 20, 25-27, 29 and 38-44 under 35 U.S.C. 112 as containing subjected matter which was not described in the specification. Specifically:

"latticed-matched" not defined; "thin layer of Si relative to the substrate" in claim 1 not understood; "the cladded nanocrystals" in claims 1 not set forth until later; "elastometric spacer" in claims 39, 40 no antecedent basis; "such as" in claim 41 not clear; "low" in claim 38 not defined. To overcome the rejections, "latticed-matched" has been corrected as lattice-matching and in claim 1; "thin layer of Si relative to" has been changed to thin layer of Si thinner than; "the wide energy gap relative to the cladded nanocrystals (CNC)" on line 7 of claim 1 has been deleted; "elastometric spacer" in claims 39, 40 has been changed to spacers, which are made of hole transporting viscous composite; "such as" in claims 41 has been change to selected from the group consisting of; and "low" in claim 38 has been change to lower than atmospheric. With these changes, it is believed that the rejections have been overcome. Since claims 2-3, 5-8, 10-16, 18, 20, 25-27, 29 and 38-42 are dependent claims of claim 1 and claim 1 has been amended to overcome the rejections, it follows that these dependent claims are also no longer indefinite.

In view of the above, it is submitted that claims 1-3, 5-8, 10-16, 18, 20, 25-27, 29 and 38-44 are in condition for allowance. Reexamination of the objections and rejections is requested. Allowance of these claims at an early date is solicited.

Respectfully submitted,

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